

Appl. No. 10/774,316
Attorney Docket No.: 200B009
Amdt. dated August 28, 2006
Reply to Office Action of May 26, 2006

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REMARKS/ARGUMENTS

This reply is in response to the Office Action dated May 26, 2006. Claims 1-19 are pending in the application and stand rejected. Applicant has amended the claims as shown to more clearly recite aspects of the invention. Applicant has also amended those claims to correct matters of form or to correct grammatical/typographic errors. As such, those amendments are not in response to the cited prior art or directed to the patentability of the invention. Those proposed amendments are also not intended to narrow the claims or otherwise limit the scope of equivalents thereof. Entry of the foregoing amendment and reconsideration of the claims is respectfully requested.

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Debras *et al.* (U.S. Patent No. 6,063,878; hereafter "Debras"), in view of Hancock *et al.* (CA Patent No. 961998; hereafter "Hancock"). The Examiner states that Debras "teach[es] blow molding or extruding polyethylene into shaped articles." The Examiner further states that Debras "does not explicitly teach the problem is cuffing but this is an inherent problem in the blow-molding/extrusion process." Applicant disagrees and respectfully traverses the rejection.

Cuffing is not inherent to blow-molding processes. Cuffing is actually unusual. Cuffing can be caused by wear and tear, improper alignment, and/or misuse of one or more components (e.g., the match diameter of the head tooling, the pressure ring, etc.) on the machine that contributes to the wall thickness of the article. Consequently, cuffing is more prominent in older equipment. Cuffing can also be a result of high temperatures, which can reduce the melt strength of the polymer, causing the polymer to stretch and become sticky. The temperatures at which this occurs can vary from machine to machine and from polymer to polymer. Accordingly, cuffing is not "an inherent problem in the blow-molding/extrusion process," contrary to the Examiner's assertion.

Also contrary to the Examiner's assertion, there is no teaching, showing, or suggestion in Debras to blow mold the disclosed polymer or any other polymer into a blow molded article. Debras only mentions blow molding in its background with reference to high molecular weight polymers. No other mention or description of blow molding is found in Debras. In fact, one

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could conclude that the high molecular weight polymers disclosed in Debras are not suitable for blow molding since the reference includes no other mention of blow molding.

Regarding the polymer disclosed in Debras, the Examiner states that Debras discloses a first and second polyethylene, the second having a lower melt index than the first. Applicant again disagrees. Debras discloses a process for making a single polymer in two reactors in series. *See* Debras at col. 2, ll. 54-60, and Abstract. The process is continuous. *Id.* at col. 4, ll. 18. In particular, "the ethylene homopolymer stream obtained in the first polymerization reactor is next transferred into the second loop reactor." *Id.* at col. 3, ll. 48-50. According to Debras, "The operating conditions in the second reactor are adapted in order that the ethylene homopolymer or copolymer should have a high molecular weight and the desired melt index and density. The final polymer will thus preferably have a melt index MI_2 , lower than 0.1 g/10 minutes." *Id.* at col. 4, ll. 1-5. Therefore, Debras does not disclose or suggest a first and second polyethylene, contrary to the Examiner's assertions.

Hancock does not remedy the deficiencies of Debras. Hancock discloses a process for preventing gel streaking in polyolefin films that contain anti-oxidants. Films are not blow molded articles, and gel streaking is of no concern or consideration in the art of blow molding. Gel streaking is related to surface roughness in films. *See* Hancock at page 2, ll. 17-21. As such, Hancock is non-analogous art. One of ordinary skill in the art of blow molding would not look to continuous extrusion process likes extruded films, cast films, and extrusion coating products, as disclosed in Hancock. *See* Hancock at page 10, ll. 19-21. Therefore, it is not "obvious to use Hancock et al's teaching in Debras et al's process for preparing blow-molded polyethylene in order to make a film which is free of gel streaking," contrary to the Examiner's assertion since gel streaking is not relevant to blow molding processes.

Therefore, even the combination of Debras and Hancock does not teach, show, or suggest the claimed invention related to blow molding. At the very least, the combination of Debras and Hancock does not teach, show, or suggest blow molding a first composition comprising a first polyethylene into a shaped article, and perceiving parison cuffing defects in said process or said blow molded article, as recited in independent claim 1 and those dependent therefrom.

Likewise, the combination of Debras and Hancock does not teach, show, or suggest a method of

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reducing cuffing in the blow molding of a composition comprising HDPE, said method comprising incorporating a small amount of a low molecular weight polyethylene glycol in said composition prior to blow molding to provide a new composition and then blow molding said new composition, as recited in independent claim 11 and those dependent therefrom. Similarly, the combination of Debras and Hancock does not teach, show, or suggest providing a first HDPE in a blow molding process and blow molding said first HDPE into an article; detecting unacceptable cuffing in said process; and transitioning from said first HDPE to a composition comprising a second HDPE having a second melt index and having incorporated therein a small amount of a low molecular weight polyethylene glycol, as recited in independent claim 11 and those dependent therefrom. Therefore, withdrawal of the rejection and allowance of the claims is respectfully requested.

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CONCLUSION

Having addressed all issues set out in the office action, Applicant respectfully submits that the pending claims are now in condition for allowance. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been addressed to the Examiner's satisfaction.

If necessary to effect a timely response, this submission should be considered as a constructive Petition for an Extension of Time sufficient to effect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1712 (Docket#: 2004B009).

Respectfully submitted,

8/28/06
Date

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